Table 2. Expected hydrodynamic characteristics for HGM subclasses

HGM Subclass	Gradients	Standing Water	Changes over summer	Rate of water level change
Lacustrine Fringe	Relatively flat gradients, horizontal towards lake; upwards from deep ground water	Should have all summer, as long as lake level remains relatively constant	Relatively flat, small declines over summer if lake level drops	Slow changes with precipitation events
Riverine - Upper Perennial	Horizontal towards stream, upwards from deep groundwater in places; may see downwards when stream segment is losing.	Standing water in early summer, declining as streamflows decline. Little or no standing water during stream baseflow periods	Small declines to base of stream unless stream drys, then rapid declines with local ground water table	Relatively rapid changes with precipitation if precipitation is enough to flood stream. Slower changes (if any) late in growing season when soil moisture is depleted
Riverine - Non-Perennial	Horizontal towards stream, upwards from deep groundwater in places; may see downwards when stream segment is losing.	Standing water in early summer, declining as streamflows decline. Little or no standing water during stream baseflow periods	Steady declines to base of stream untilstream drys, then rapid declines with local ground water table	Relatively rapid changes with precipitation if precipitation is enough to flood stream. Slower changes (if any) late in growing season when soil moisture is depleted
Riverine - Tidal	Horizontal towards stream, upwards from deep groundwater in places.	Standing water in early summer, declining as streamflows decline. Little or no standing water during stream baseflow periods	Steady declines to base of stream. Should not dry out completelye	Relatively rapid changes with precipitation if precipitation is enough to flood stream. Slower changes (if any) late in growing season when soil moisture is depleted
Depressional - Closed	Upwards gradients at least in places, downwards gradients away from hills as water enters back into groundwater system.	Standing water likely for much of the time, but may dry out at end of season or in dry years.	Slow decline if hills are high, may be faster decline if hills are lower.	Rapid changes with precip events if overland flow develops. Otherwise slow changes.
Depressional - Seim-closed	Upwards gradients at least in places, downwards gradients away from hills as water enters back into groundwater system.	Standing water likely for some of the time, but not expected all year because of surface outflow.	Slow decline if hills are high, may be faster decline if hills are lower.	Rapid changes with precip events if overland flow develops. Otherwise slow changes.
Depressional - Open GW	Upwards gradients at least in places, downwards gradients away from hills as water enters back into groundwater system.	Standing water likely for much of the time, but may dry out at end of season or in dry years.	Slow decline if hills are high, may be faster decline if hills are lower.	Rapid changes with precip events if overland flow develops. Otherwise slow changes.
Depressional - No GW input	Little vertical gradients; horizontal gradients towards outflow streams if they exist.	Standing water at beginning of year, but declining rapidly once dry weather sets in	Continuous decline over summer, exept for precip events. Decline may be rapid during dry periods	Rapid changes with precip events and with hot weather as ET draws down water levels

Table 2. Expected hydrodynamic characteristics for HGM subclasses

HGM Subclass	Gradients	Standing Water	Changes over summer	Rate of water level change
Mineral Soil Flat	Downward vertical gradients if any; horizontal gradients towards surface outflow	Standing water at beginning of year, but declining rapidly once dry weather sets in	Continuous decline over summer, exept for precip events. Decline may be rapid during dry periods	Slow changes with precip events and with hot weather as ET draws down water levels
Organic Soil Flat	Downward vertical gradients if any; horizontal gradients towards surface outflow	Standing water at beginning of year, but declining rapidly once dry weather sets in	Continuous decline over summer, exept for precip events. Decline may be rapid during dry periods	Very slow changes with precipitation and with dry weather, due to the high porosity of peat.
Tidal Fringe	Upwards or no vertical gradients; horizontal gradients both towards and away from salt water depending on tidal stage	Standing water during high tides.	Little change over summer expected except with lunar tidal cycle - neap tide periods lower, spring tide periods higher	Rapid daily changes with tidal stage
Slope	Upwards to horizontal gradients upslope; downwards to horizontal gradients downslope; horizontal gradients in middle	Little to no standing water expected	Slow decline over the summer as the local water table declines	Slow changes with precipitation and other events.